### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

### (19) World Intellectual Property Organization

International Bureau



## - 1 (600) B (1) (600) B (1)

(43) International Publication Date 29 December 2004 (29.12.2004)

PCT

# (10) International Publication Number WO 2004/113393 A1

(51) International Patent Classification<sup>7</sup>: 220/58

C08F 2/32,

SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,

ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,

(84) Designated States (regional): ARIPO patent (GH, GM,

(21) International Application Number:

PCT/IT2003/000389

(22) International Filing Date: 24 June 2003 (24.06.2003)

(25) Filing Language:

English

(26) Publication Language:

English

- (71) Applicant (for all designated States except US): LAMBERTI S.p.A. [IT/IT]; Via Piave,18, I-21041 Albizzate (IT).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): BENETTI, Arianna [IT/IT]; Corso Leonardo Da Vinci, 61, I-21013 (IT). POLOTTI, Gianmarco [IT/IT]; Viaa Fogagnolo, 89, I-20099 Sesti San Giovanni (IT). FEDERICI, Franco [IT/IT]; Viale Stelvio, 49, I-21052 Busto Arsizio (IT). LI BASSI, Giuseppe [IT/IT]; Via Stretti, 4, I-21026 Gavirate (VA) (IT).
- (74) Agent: LAMBERTI S.p.A.; Attn.: GIARONI Paola, Via Piave, 18, I-21041 Albizzate (VA) (IT).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE,

SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

### Declarations under Rule 4.17:

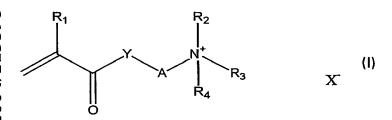
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, Gi, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)
- of inventorship (Rule 4.17(iv)) for US only

#### Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

### (54) Title: SYNTHETIC THICKENERS FOR COSMETICS



(57) Abstract: Disclosed are inverse emulsions for the preparation of cosmetic formulations wherein the weight ratio between the aqueous phase and the organic phase is from 4:1 and 2:1 and containing Ron 20 to 70% buy weight of an acrylic polymer obtained by inverse emulsion polymerisation of from 55 to 75% by weight of an anionic acrylic monomer containing a strongly acidic functional group; Ron 0.1 to 5% by weight of a cationic acrylic monomer if the formula (I).

Wherein  $R_1$  is hydrogen or methyl;  $R_2$ ,  $R_3$ ,  $R_4$  are, one independently of the others, hydrogen or  $C_1$ - $C_4$  alkyl; Y is NH or O; A is a  $C_1$ - $C_6$  alkylene; from 25 to 45% by weight of a  $C_3$ - $C_5$  anionic acrylic monomer containing a carboxylic group. Also disclosed is the procedure for their preparation.